

Year 5/6 pupils – Rocket Scientists

Dates of course	Times	Venue	Cost	Max. places	Subject
Tuesday 11 th June 2024	9.30am – 3.30pm	Braeside Education Centre	£60	16	Science AGAT

Course details

This exciting and unique course provides the opportunity to research the history of space travel and explore the design of vehicles that make it possible. The course opens with a study of physics and aerodynamics, including Newton's Three Laws of Motion. To reinforce their learning, students will work in groups to design rockets that will be launched to test the scientific theories that have been covered. Computer simulation will be used to check each rocket's stability before launching for real. Forget air and water powered rockets that can be bought in model shops – we will be using gunpowder as our fuel! The pyrotechnic rocket motors used are specifically designed for this course and remotely fired. They are both exciting and safe. The students do not handle any form of explosive at any time and safety is paramount.

Guidance criteria for identifying participants:

- Pupils should have an interest in physics and an enquiring mind.
- Pupils will need to be able to work confidently, both individually and in small groups.
- Pupils must be willing to generate ideas based on scientific data and transfer these ideas into a completed creative product.
- Pupils must want to share the academic and practical challenges of the course – and the fun!

Course tutor

Adrian Dening has over thirty-five years' experience in delivering science courses for Able, Gifted and Talented students. He offers a wide range of topics exploring electronics, ICT, space science and even spying! He is a keen Amateur Radio enthusiast and astronomer. Adrian is an Approved Driving Instructor and member of the Chartered Institute of Personnel and Development. He is the Technical and Training Director of Radio Ninesprings, a local community radio station and produces a weekly astronomy program for them. His G&T courses are challenging, with a balance between theory at a high academic level and fun practical exercises to consolidate what has been learnt. The courses involve a mix of individual and group activities and students are actively encouraged to explore different learning styles, take responsibility for their own time management and think "outside the box". A full portfolio of Adrian's courses is available at <http://www.AdrianDening.com>

As a result of attending the course you will have:

- A greater understanding of space exploration and the technologies that support it.
- Worked successfully on a group project, experiencing leadership and negotiation skills.
- Been responsible for a practical project at all its stages from initial design to final testing.
- Enjoyed new challenges and shared your knowledge with new like-minded friends.

Students should bring:

- Pencils / pencil case
- Notebook/paper
- Water bottle
- Clothing suitable for outdoor break times.

Lunch and refreshments are provided. School uniform is not required.
No mobile phones.